I. Amendments to the Claims

This listing of claims replaces without prejudice all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently Amended) A method of reducing levels of residual halogen to from 70 to 206 parts per million and reducing levels of residual Group IIIb metals to 0.1 or less parts per million in a ~~crude~~ liquid poly(α-olefin) polymerized in the presence of a catalyst comprising the halogen and Group IIIb metals, wherein the method comprises:

A) washing the ~~crude~~ liquid poly (α-olefin) with water;

B) separating the aqueous and organic phases;

C) then adding from 0.78-1.0 eq. metal/eq. halogen of an adsorbent selected from the group consisting of magnesium silicates, calcium silicates, aluminum silicates, aluminum oxides, and clays to the organic phase to form a slurry;

D) heating the slurry under a vacuum of at least 50 mmHg ~~reduced pressure~~ and at a temperature of at least about 180°C for at least about thirty minutes; and then

E) separating the adsorbent from the slurry.

2. (Original) The method of claim 1 wherein the halogen is selected from the group consisting of chlorine, bromine, and mixtures thereof.

3. (Original) The method of claim 2 wherein the halogen is bromine.

4. (Original) The method of claim 1 wherein the Group IIIb metal is aluminum.

5. (Original) The method of claim 1 wherein the adsorbent is a magnesium silicate.

6. (Original) The method of claim 1 wherein the heating step is continued for at least about 90 minutes.

7. (Original) The method of claim 1 wherein the heating step is continued for at least about 180 minutes.

8. (Canceled).

9. (Original) The method of claim 1 wherein the adsorbent is separated from the slurry by filtration.

10. (Currently Amended) A method of reducing levels of residual ~~bromine~~ halogen to about 105 parts per million and reducing levels of residual ~~aluminum~~ Group IIIb metals to 0.1 or less parts per million in a ~~crude~~ liquid poly(α-olefin) polymerized in the presence of a catalyst comprising the ~~bromine~~ halogen and ~~aluminum~~ Group IIIb metals, wherein the method comprises:

A) washing the ~~crude~~ liquid poly (α-olefin) with water;

B) separating the aqueous and organic phases;

C) then adding ~~about 0.4 eq. MG/eq. halogen~~ about 1.2 eq. metal/ eq. halogen of ~~a magnesium silicate~~ an adsorbent selected from the group consisting of magnesium

silicates, calcium silicates, aluminum silicates, aluminum oxides, and clays to the organic phase to form a slurry;

D) heating the slurry under a vacuum of at least 50 mmHg ~~reduced pressure~~ and at a temperature of at least about 180°C for about ~~ninety~~ 180 minutes; and then

E) ~~filtering~~ separating the ~~magnesium silicate~~ adsorbent from the slurry.

11. (Currently Amended) A method of reducing levels of residual halogen to from 70 to 206 parts per million and reducing levels of residual Group IIIb metals to 0.1 or less parts per million in a ~~crude~~ liquid poly(α-olefin) polymerized in the presence of a catalyst comprising the halogen and Group IIIb metals, wherein the method comprises:

A) washing the ~~crude~~ liquid poly (α-olefin) with water;

B) separating the aqueous and organic phases;

C) then adding from 0.78-1.0 eq. metal/eq. halogen of an adsorbent selected from the group consisting of magnesium silicates, calcium silicates, and aluminum silicates to the organic phase to form a slurry;

D) heating the slurry under a vacuum of at least 50 mmHg ~~reduced pressure~~ and at a temperature of at least about 180°C for at least about thirty minutes; and then

E) separating the adsorbent from the slurry.

12. (Previously Presented) The method of claim 11 wherein the halogen is selected from the group consisting of chlorine, bromine, and mixtures thereof.

13. (Previously Presented) The method of claim 12 wherein the halogen is bromine.

14. (Previously Presented) The method of claim 11 wherein the Group IIIb metal is aluminum.

15. (Previously Presented) The method of claim 11 wherein the adsorbent is a magnesium silicate.

16. (Previously Presented) The method of claim 11 wherein the heating step is continued for at least about 90 minutes.

17. (Previously Presented) The method of claim 11 wherein the heating step is continued for at least about 180 minutes.

18. (Canceled).

19. (Previously Presented) The method of claim 11 wherein the adsorbent is separated from the slurry by filtration.

20. (Previously Presented) The method of claim 14 wherein the adsorbent is a magnesium silicate.